KA / BG-GPO/2515/WPP-47/2006-2008



ಕರ್ನಾಟಕ ರಾಜ್ಯಪತ್ರ

ಅಧಿಕೃತವಾಗಿ ಪ್ರಕಟಿಸಲಾದುದು

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ಭಾಗ–೪

ಕೇಂದ್ರದ ವಿಧೇಯಕಗಳು ಮತ್ತು ಅವುಗಳ ಮೇಲೆ ಪರಿಶೀಲನಾ ಸಮಿತಿಯ ವರದಿಗಳು, ಕೇಂದ್ರದ ಅಧಿನಿಯಮಗಳು ಮತ್ತು ಅಧ್ಯಾದೇಶಗಳು, ಕೇಂದ್ರ ಸರ್ಕಾರದವರು ಹೊರಡಿಸಿದ ಸಾಮಾನ್ಯ ಶಾಸನಬದ್ಧ ನಿಯಮಗಳು ಮತ್ತು ಶಾಸನಬದ್ಧ ಆದೇಶಗಳು ಮತ್ತು ರಾಷ್ಟ್ರಪತಿಯವರಿಂದ ರಚಿತವಾಗಿ ರಾಜ್ಯ ಸರ್ಕಾರದವರಿಂದ ಪುನಃ ಪ್ರಕಟವಾದ ಆದೇಶಗಳು.

MINISTRY OF AGRICULTURE

(Department of Agriculture and Co-operation)

NOTIFICATION New Delhi, the 24th July, 2007

G.S.R. 505(E).- Whereas the Central Government is of the opinion that the following machines; namely:-

(i) power operated chaff cutter; and

(ii) power operated sugarcane crusher,

are of such nature that their use in agricultural or rural sector is likely to cause to its operator death, dismemberment of any limb or other bodily injury;

Now, therefore, in exercise of the powers conferred by clause (c) of Section 3 of the Dangerous Machines (Regulation) Act, 1983 (35 of 1983), the Central Government hereby specifies the said machines as dangerous machine.

[F.No.13-30/2005-My (I & P)]

PREM NARAIN, Jt. Secy.

ANNEX A

(Clauses 4.2 and 7.1)

REQUIREMENTS FOR FEEDING SYSTEMS OF POWER THRESHERS

A-1 FEEDING CHUTE

A-1.1 Material

Mild steel sheet (see IS 2062) shall be used in the manufacture of the feeding chute. The thickness of sheet shall not be less than 1.6 mm.

A-1.2 Shape

The shape of the chute shall be as shown in Fig.1

A-1.3 Dimensions

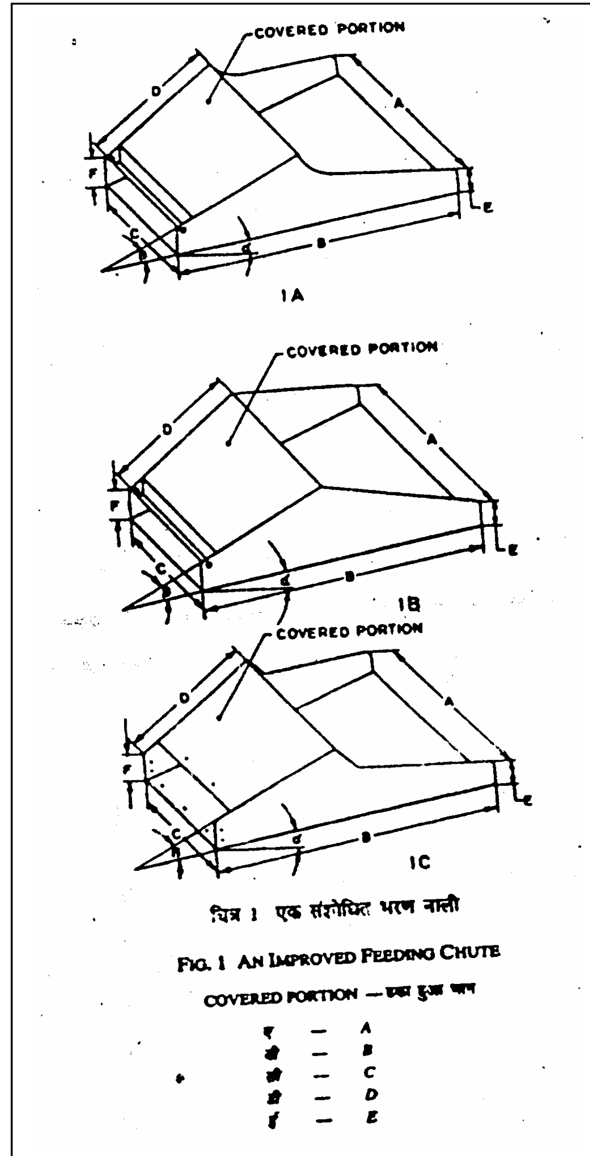
A-1.3.1 The total length of chute, length of covered portion (see B and D in Fig. 1) shall be 900 mm, Min and 450 mm, Min respectively. The angle of lift of covered portion (see B fig. 1) shall be between 10^0 to 30^o. However, the length of the covered portion of chute for chaff-cutter type thresher shall not be less than 550 mm.

A-1.3.2 Other dimensions, when read in conjunction with fig. 1, for feeding chute of hammer mill type, drummy type and chaff-cutter type threshers of various power ratings are given in Table 3 for guidance.

Table 3 Recommended Dimensions of Chute for Hammer Mill, Drummy and Chaff-Cutter Type Threshers

Sl. No.	Size of the Prime Mover for the Thresher, kw	A mm	C mm	E mm	F mm
i)	3.7	500	200	50	125
ii)	5.5	550	200	60	175
iii)	7.5	600	220	60	190
iv)	11 and above	650	220	60	200

A-1.3.3 Other dimensions, when read in conjunction with Fig. 1 for chute of spike-tooth cylinder type thresher of various power ratings are given in Table 4 for guidance.



चित्र 1 एक संशोधित भरण नाली

FIG. 1 AN IMPROVED FEEDING CHUTE

COVERED PORTION — ढका हुआ भाग

Table 4 Recommended Dimensions for Chute for Spike Tooth Cylinder Type Threshers (Clause A-1.3.3)

Sl. No.	Size of the Prime Mover for the Thresher, kw	A mm	C mm	E mm	F mm
(1)	(2)	(3)	(4)	(5)	(6)
i)	3.7	440	350	60	190
ii)	5.5	480	400	60	190
iii)	7.5	540	480	60	190
iv)	11 and above	590	530	60	210

A-1.4 Other Requirements

A-1.4.1 To facilitate easy and smooth feeding of the crop during operation, the feeding chute shall be properly mounted on the thresher. In the mounted position, angle a (see Fig. 1) shall be kept as under:

a) For hammer-mill and drummy-type threshers - 10^{o} to 15^{o}

b) For chaff-cutter type threshers - 0^{o} to 5^{o}

c) For spike tooth type threshers - 10^{o} to 15^{o}

A-1.4.2 No sharp edges shall be provided on the feeding chute.

A-1.4.3 The covered portion of the chute shall be rigidly attached and shall not be able to be detached without cutting.

A-1.4.4 The feeding chute shall be so fixed with the thresher that it is not possible to remove it easily.

A-2 FEEDING HOPPER

A-2.1 Material

A-2.1.1 Hopper - Mild steel sheet (see IS 2062) shall be used. The thickness of the sheet shall not be less than 1.6 mm.

A-2.1.2 Star Wheels - Cast iron (see IS 210) shall be used.

A-2.1.3 Star Wheel Shaft - Mild steel rod (see IS 2062) shall be used.

A-2.2 Shape

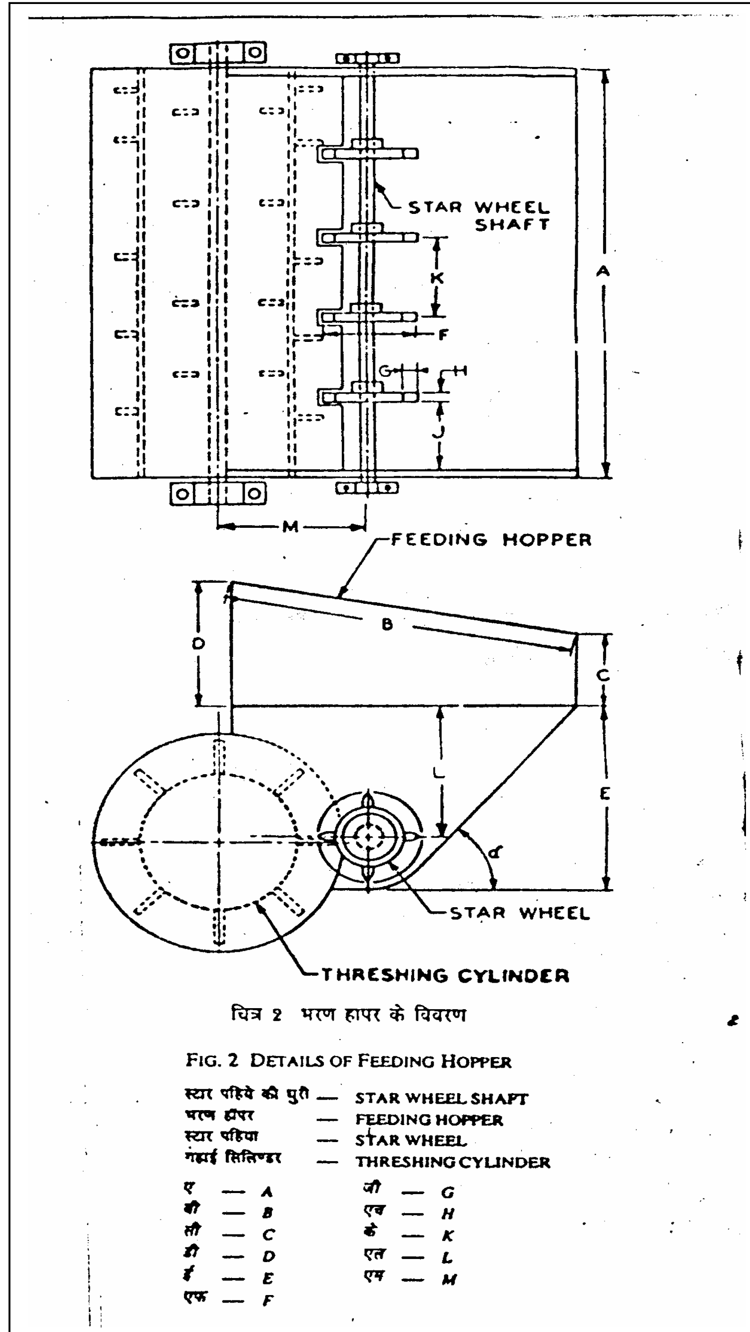
The shape of the hopper unit shall be as shown in Fig. 2.

A-2.3 Dimensions

A-2.3.1 The dimension A in Fig. 2 shall be 400 mm more than the length of the threshing cylinder and shall be declared by the manufacturer

A-2.3.2 The thickness of sheet for the hopper shall be 1.6 mm.

A-2.3.3 The dimensions of the hopper and star wheels when read in conjunction with Fig. 2 shall be as given in Table 5.



चित्र 2 भरण हापर के विवरण

FIG. 2 DETAILS OF FEEDING HOPPER

Table 5 Dimensions of Hopper and Star Wheel

(Clause A-2.3.3)

Sl. No.	Size of the Prime Mover for Thresher, kw	B Min mm	C Min mm	D Min mm	E Min mm	F mm	G mm	H mm	a †5 deg
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
i)	7.5	900	180	340	75	280	45	20	50
ii)	11	900	200	370	500	280	45	20	50
iii)	15	925	220	400	535	280	45	20	50
iv)	18.7 and above	950	240	430	565	280	45	20	50

NOTE - Hopper feeding system is normally used with the threshers of 7.5 kw or more power ratings.

A-2.3.4 Mounting Dimensions

A-2.3.4.1 The feed hopper shall be built as an integral part of the thresher.

A-2.3.4.2 The location of the star wheels in relation to hopper sides (see J in Fig.2) shall be 75 mm. The centre to centre distance of two star wheels (see K in Fig. 2) shall be 220 mm.

A-2.3.4.3 The fixation of star wheel shaft in hopper (see L in Fig. 2) and fixation of star wheel in relation to centre of threshing cylinder (see M in Fig. 2) shall be 350 mm and 450 mm respectively.

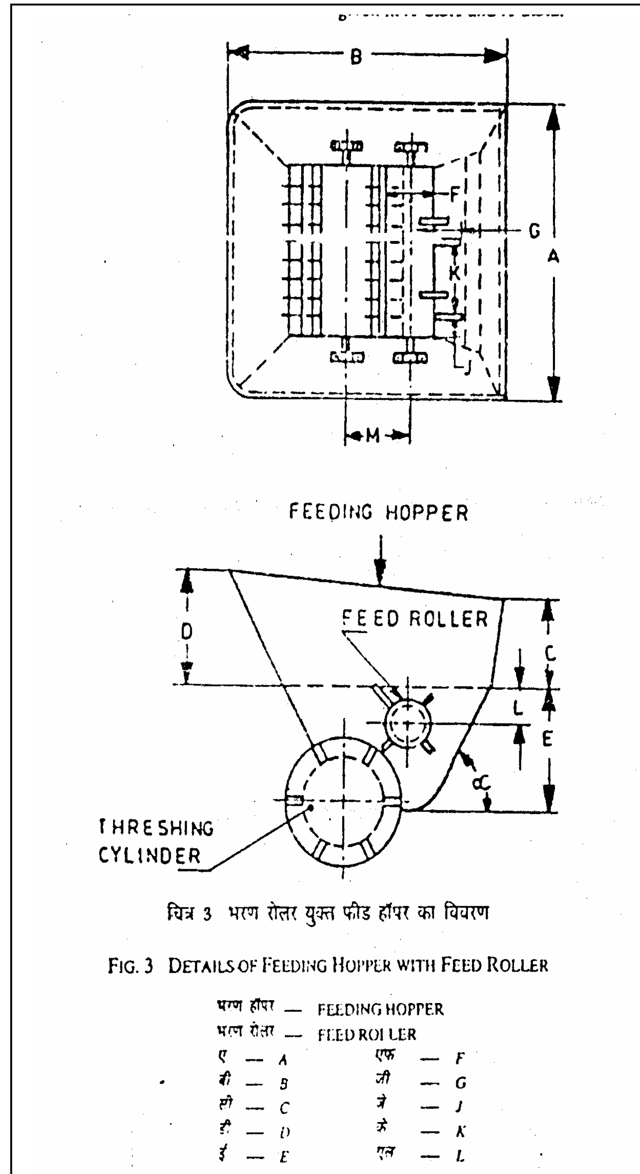
A-2.4 Other Requirements

A-2.4.1 The hopper shall be attached on the top of the threshing cylinder or on the side. If it is attached on the sides a feed regulating shaft shall be provided and it shall be operated at a speed of 25 to 55 rpm.

A-2.4.2 No sharp edges shall be provided in hopper or on star wheels.

A-2.4.3 The casting shall be smooth and shall not be porous.

A-2.5 Other types of feeding mechanisms may also be used with feeding hoppers. A typical shape of the hopper unit with feed roller type feeding mechanism is shown in Fig. 3. The material and dimensional requirement of feed roller type feeding mechanism are given in A-2.5.1 and A-2.5.2.



चित्र 3 भरण रोलर युक्त फीड हॉपर का विवरण

FIG. 3 DETAILS OF FEEDING HOPPER WITH FEED ROLLER

भरण हॉपर — FEEDING HOPPER
भरण रोलर — FEED ROLLER
ए — A एफ — F
बी — B जी — G
सी — C जे — J
डी — D के — K
ई — E एल — L

A-2.5.1 Material

The material for the construction of hopper, feed rollers and feed roller shaft shall be of mild steel (see IS 2062).

A-2.5.2 Dimensions

A-2.5.2.1 The dimensions A in Fig. 2A shall be 400 mm more than the length of the threshing cylinder and shall be declared by the manufacturer.

A-2.5.2.2 The thickness of sheet for hopper shall be 1.6 mm, Min.

A-2.5.2.3 The dimensions of the hopper and feed rollers when read in conjunction with Fig. 3 shall be as given in Table 6.

Table 6 Dimensions of Hopper and Feed Roller
(Clause A-2.5.2.3)

Sl. No.	Size of the Prime Mover for the Thresher, kw	B Min mm	C Min mm	D Min mm	E Min mm	F mm	G mm	H mm	a ±5 deg
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
i)	15	740	150	545	560	300	100	15	55
ii)	26.3	900	200	560	570	300	100	15	55
iii)	37.5	925	230	570	580	300	100	15	55

NOTE - Hopper feeding system with feed roller type feeding mechanism is normally used with thresher of 15 kw or more power ratings.

A-2.5.2.4 The feed hopper shall be built as an integral part of the thresher.

A-2.5.2.5 The location of the feed rollers in relation to hopper sides (see J in Fig. 3) shall be 90 mm. The centre to centre distance of two feed roller rods (see K in Fig. 3) shall be 355 mm.

A-2.5.2.6 The fixation of feed roller in hopper (see L in Fig. 3) and fixation of feed roller in relation to centre of threshing cylinder (see M in Fig. 3) shall be 125 mm and 450 mm respectively.

A-2.5.2.7 No sharp edges shall be provided in hopper or on feed rollers.

A-3 POSITIVE FEED ROLLERS WITH CONVEYOR OR CHUTE.

A-3.0 The system is used on a chaff-cutter type thresher. It comprises a feed pressing roller two corrugated feed rollers and a feeding chute or conveyor with power transmission system. For this type of threshers with power ratings. of 15 kw or more, a feed reversing mechanism is recommended. It comprises a gear box, a clutch lever and two joining shafts with universal joints (see Fig. 4). In some threshers fast and loose pulleys to cut-off the drive to the upper and lower feed rollers are also used. In the feeding system with feed reversing mechanism, if the hand of an operator gets entrapped, the clutch lever is pressed by his hand or shoulder and the drive to the feed roller is cut-off in the neutral position or the direction of the upper and lower feed rollers is reversed.

A-3.1 Material

A-3.1.1 Chute-The chute shall be made of mild steel sheet (see IS 2062) having thickness of not less than 1.6 mm.

A-3.1.2 Conveyor - Canvass or rubber [see IS 1891 (Part 1)] or steel slats (see IS 2062).

A-3.1.3 Driving Roller - Cast iron (See IS 210)

A-3.1.4 Pressing Roller - Cast iron (See IS 210).

A-3.1.5 Feed Rollers - Cast iron (see IS 210).

A-3.1.6 Tension Spring - Spring steel [see IS 4454 (Part 1)].

A-3.1.7 Clutch Lever-Mild steel (see IS 2062)

A-3.1.8 Gears - Cast iron (see IS 210).

A-3.1.9 Gear Box - Cast iron (see IS 210) or mild steel (see IS 2062).

A-3.1.10 Gear Shaft - Mild steel (see IS 2062).

A-3.2 Shape

The shape of feeding system with feed reversing mechanism used for chaff-cutter type threshers is shown in Fig. 4.

A-3.3 Dimensions

A-3.3.1 If chute is used the dimensions shall be as given in A-1.3.1 andA-1.3.2 and the arrangement should be as shown in Fig. 5.

A-3.3.2 If conveyor is used, the length of centre to centre distance of conveyor rollers (see A in Fig. 4) shall be minimum of 1 200 mm. Minimum of 450 mm of length of conveyor at feed inlet side shall be covered.

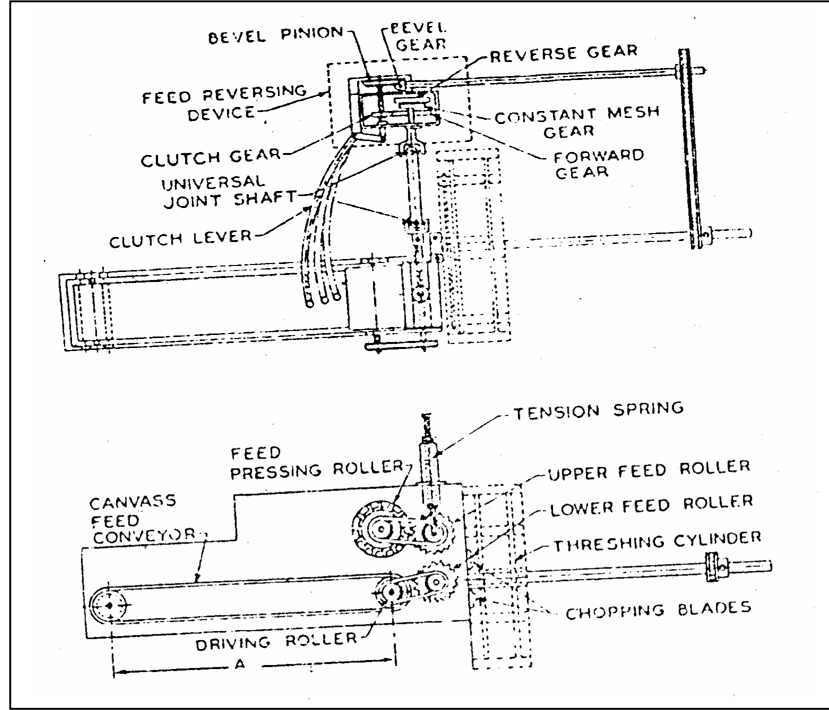
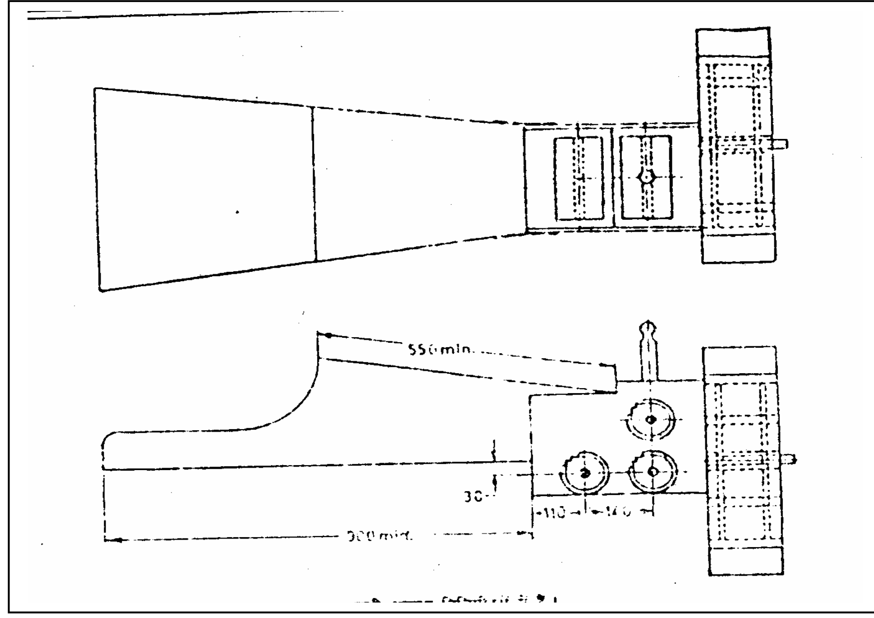


Fig. 4 FEED REVERSING DEVICE FOR CHAFF-CUTTER TYPE THRESHERS

- BEVEL PINION
- BEVEL GEAR
- REVERSE GEAR
- FEED REVERSING DEVICE
- CLUTCH GEAR
- UNIVERSAL JOINT SHAFT
- CLUTCH LEVER
- CONSTANT MESH GEAR
- FORWARD GEAR
- TENSION SPRING
- FEED REVERSING ROLLER
- CANVASS FEED CONVEYOR
- UPPER FEED ROLLER
- LOWER FEED ROLLER
- THRESHING CYLINDER
- CHOPPING BLADES
- DRIVING ROLLER



all direction in milimeter

Fig. 5 SAFE FEEDING CHUTE USED ON A CHAFF-CUTTER TYRE THRESHER

A-3.4 Feed Reversing Device

A-3.4.1. Functioning of Device (see Fig 6)

Pinion A receives the drive from the main shaft of the timesher by means of chain and sprocket. Pinion 'A' meshes with bevel gear 'B' which is mounted on a counter shaft On the same shaft a spur pinion "G" is mounted which slides on splines with the help of a hand lever. When pinion 'G' meshes with the gear 'F' on the lower feed shaft, the lower feed roller revolves in clock wise direction and the upper feed roller in anti-clockwise direction. This is the feed in position.

A-3.4.1.1 When pinion 'G' is meshed with gear 'C', the direction of rotation of the upper and lower rollers is reversed. In other words, the upper roller rotates in clockwise and the lower roller in anti-clockwise direction. This is the reversed or feedback position and the material being fed moves out instead of moving into the threshing chamber.

A-3.4.1.2 The third position is when pinion 'G' does not mesh either with gear 'F' or 'C'. This is the neutral position. The lever to slide pinion 'G' can be actuated by hand or foot or shoulder.

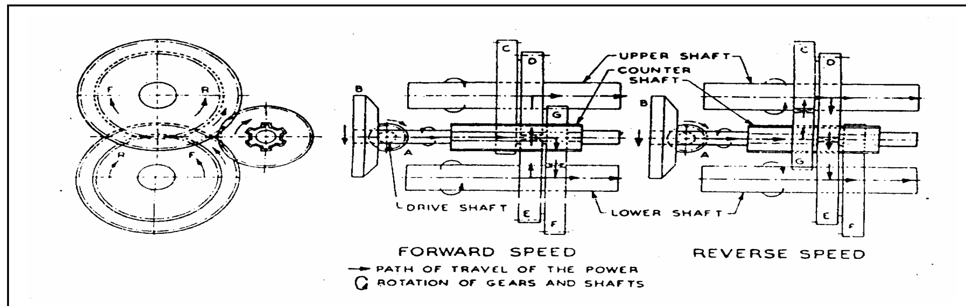


FIG. 6 POWER TRANSMISSION THROUGH FEED REVERSING SYSTEM FOR CHAFF-CUTTER THRESHER

-	UPPER SHAFT	-	A
-	COUNTER SHAFT	-	B
-	DRIVE SHAFT	-	C
-	LOWER SHAFT	-	D
-	FORWARD SPEED	-	E
-	REVERSE SPEED	-	F
		-	G

PATH OF TRAVEL OF THE POWER

G ROTATION OF GEARS AND SHAFTS

A-3.4.1.3 The details of gears in this system shall be as given in Table 7.

Table 7 Details of Gears in the Feed Reversing Mechanism

Sl. No.	Type of Gear/Pinion	Designation	Shaft on which Mounted
(1)	(2)	(3)	(4)
i)	Bevel gear	A	Splined shaft on main shaft
ii)	do	B	Counter shaft
iii)	Spur pinion	C	Counter shaft
iv)	Spur gear	D	Upper feed roller shaft
v)	do	E	do
vi)	do	F	Lower feed roller shaft
vii)	Bevel gear	G	Splined shaft on main shaft

A-3.4.2 Functioning of Device (see Fig. 7)

If the roller handle is put in backward direction, bevel gear 'A' which is mounted on splined shaft receives the drive from main shaft. The main shaft moving in anti-clockwise direction will rotate bevel gear 'A' also in anti-clockwise direction. Bevel gear 'A' meshes with bevel gear 'B' which is mounted on a counter shaft, having at other end a pinion 'C'. This will rotate bevel gear 'B' counter shaft and pinion 'C' in clockwise direction. Gear 'D' meshes with pinion 'C' and rotates in anti-clockwise direction Gears 'D' and 'E' are on the same shaft, hence the direction of rotation of 'E' would also be the same. Gears 'E' and 'F' mounted on upper and lower feed roller, shafts respectively, mesh with each other; therefore the gear 'F' rotates in clockwise direction. The direction of rotation of upper and lower feed rollers would be the same as that of gears 'E' and 'F' This is the feed in position.

A-3.4.2.1 If the roller handle is put in forward direction, bevel gear 'G', which is mounted on splined shaft, receives the drive from main shaft and moves in anti-clock wise direction. Bevel gear 'G' meshes with bevel gear 'B'. The bevel gear 'B', counter shaft and pinion. 'C' will rotate in anti-clock wise direction. This will ultimately lead to the rotation of lower feed roller in anti-clock wise direction. This is the reversed or feedback position and the material being fed moves out instead of moving into the threshing chamber.

A-3.4.2.2 In case the roller handle is kept in central position, feed reversing mechanism will not operate. This is the neutral position.

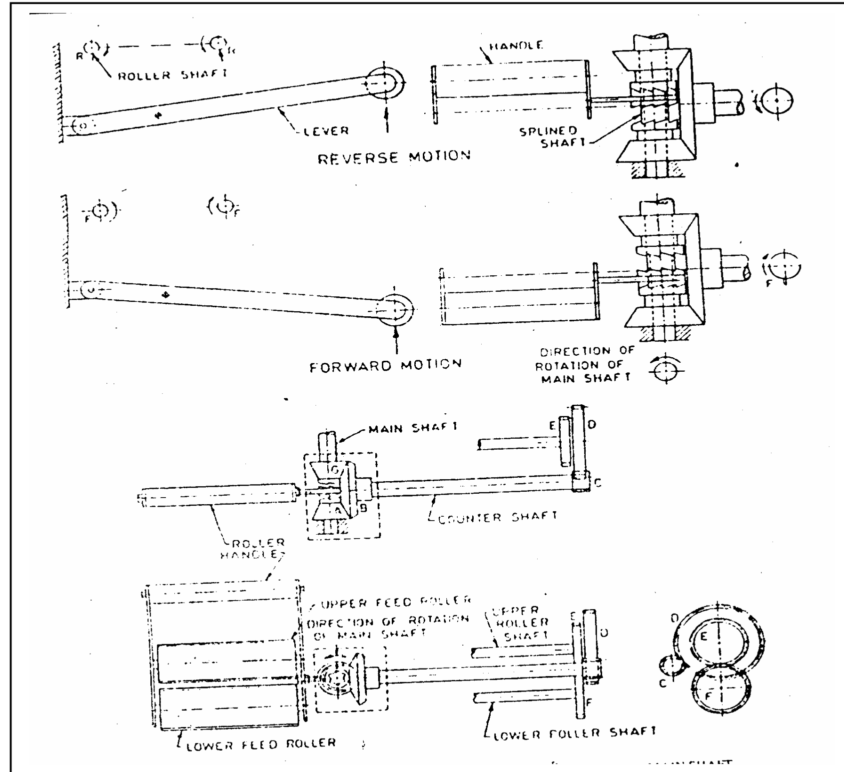
A-3.5 Where conveyor feeding system is not provided in a chaff-cutter type thresher not the chute is covered from top, a second set (secondary set) of feed rollers shall be placed at 200 to 300 mm axial distance to assist feeding of the crop to the primary set of feed rollers. The top roller (which is idle, that is not driven positively) of the second set of the rollers shall have moderate axial grooves and a spring control to let the hand be withdrawn without injury before the hand gets to the second set of rollers.

A-3.6 Other Requirements

A-3.6.1 All the sharp edges shall be avoided.

A-3.6.2 Castings shall be smooth and shall not be porous.

A-3.6.3 The shifting of gear shall be easy and smooth.



- ROLLER SHAFT
- HANDLE
- ROLLER SHAFT
- LEVER
- SPLINED SHAFT
- REVERSE MOTION
- FORWARD MOTION
- DIRECTION OF MAIN SHAFT
- MAIN SHAFT
- COUNTER SHAFT
- ROLLER HANDLE
- UPPER FEED ROLLER
- UPPER ROLLER SHAFT
- LOWER ROLLER SHAFT
- LOWER FEED ROLLER

FIG. 7 WORKING OF FEED REVERSING MECHANISM FOR CHAFF-CUTTER TYPE THRESHER

A-4 CONVEYOR FEEDING SYSTEM

A-4.0 Conveyor system is generally used with spike tooth or rasp-bar type threshers of power ratings of 5.5 kw or higher.

A-4.1 Material

A-4.1.1 Conveyor - Rubber [see IS 1891(Part 1)]

A-4.1.2 Fenders - Mild steel (see IS 2062).

A-4.1.3 Conveyor Roller - Cast iron (see IS 210).

A-4.1.4 Cover - Mild steel sheet (see IS 2062) having thickness of 1.6 mm, Min.

A-4.2 Shape

The shape of a conveyor system is given in Fig. 8.

A-4.3 Dimensions

A-4.3.1 The centre to centre distance of conveyor roller (see A in Fig. 8), shall be minimum of 1000 mm.

A-4.3.2 The length of covered portion of conveyor shall be minimum of 600 mm.

A-4.4 Other Requirements

A-4.4.1 All the sharp edges shall be avoided.

A-4.4.2 Castings shall be smooth and shall not be porous.

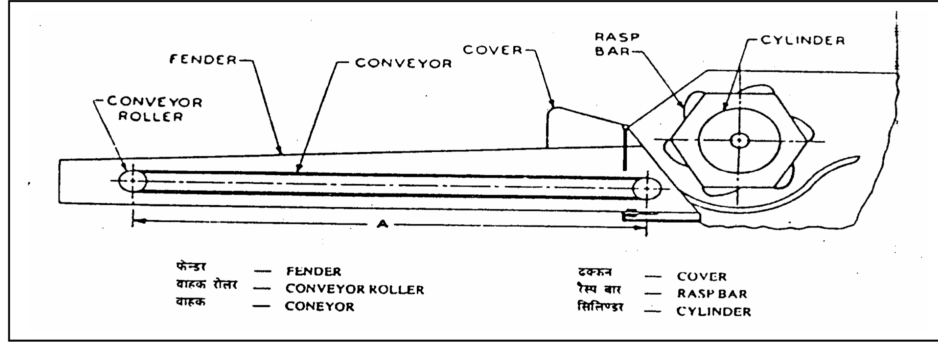


FIG. 8 ARRANGEMENT FOR FEEDING CONVEYOR FOR RASP-BAR TYPE THRESHER

ANNEX A

[Clause 7.3 (b)]

REQUIREMENTS OF CONVEYOR

A-1 CONSTRUCTION

It comprises a feed pressing roller, two corrugated feed rollers and conveyor with power transmission system. For this type of chaff cutters with power ratings of 15 KW or more, a feed reversing mechanism is recommended. It comprises of a gear box, a clutch lever and two joining shafts with universal joints (see Fig. 9). In some chaff cutters fast and loose pulleys to cut-off the drive to the upper and lower feed rollers are also used. In the feeding system with feed reversing mechanism, if the hand of an operator gets entrapped, the clutch lever is pressed byhis hand or shoulder and the drive to feed roller is cut-off in the neutral position or the direction of the upper and lower feed rollers is reversed.

A-2 MATERIAL

A-2 Conveyor Canvass or rubber [see IS 1891] (Part 1) or steel slats (see IS 2062).

A-2.2 Driving Roller - Cast iron (see IS 210)

A-2.3 Pressing Roller - Cast iron (see IS 210).

A-2.4 Feed Rollers -Cast iron (see IS 210).

A-2.5 Tension Spring - Spring steel [see IS 4454 (Part 1)]

A-2.6 Clutch Lever - Mild steel (see IS 2062).

A-2.7 Gears - Cast iron (see IS 210).

A-2.8 Gear Box - Cast iron (see IS 210) or mild steel (see IS 2062)

A-2.9 Gear shaft - Mild steel (see IS 2062)

A-2.10 Stand - Mild steel (see IS 2062)

A-3 DIMENSIONS

The length of center-to-center distance of conveyor rollers (see A in Fig 9) shall be minimum of 1200 mm Minimum of 450 mm of length of conveyor at feed inlet side shall be covered.

A-4 FEED REVERSING DEVICE

A-4.1 Functioning of Device(see Fig. 10)

Pinion 'A' receives the drive from the main shaft of the chaff cutter by means of chain and sprocket. Pinion 'A' meshes with bevel gear 'B' which is mounted on a counter shaft. On the same shaft a spur pinion 'G' is mounted which slides on splines with the help of a hand lever. When pinion 'G' meshes with the gear 'F' on the lower feed shaft, the lower feed roller revolves in clockwise direction and the upper feed roller in anti-clockwise direction. This is the feed-in-position.

A-4.1.1 When pinion 'G' is meshed with gear 'C' the direction of rotation of the upper and lower rollers is reversed. In other words, the upper roller rotates in clockwise and the lower roller in anti-clockwise direction. This is the reversed or feedback position and the material being fed moves out instead of moving into the cutting zone chamber.

A-4.1.2 The third position is when pinion 'G' does not mesh either with gear 'F' or 'C'. This is the neutral position. The lever to slide pinion 'G' can be actuated by hand or foot or shoulder.

A-4.1.3 The details of gears in this system shall be an given in Table 2.

Table 2 Details of Gears in the Feed Reversing Mechanism

Sl. No.	Type of Gear/Pinion	Designation	Shaft on Which Mounted
i)	Bevel gear	A	Splined shaft on main shaft
ii)	Bevel gear	B	Counter shaft
iii)	Spur pinion	C	Counter shaft
iv)	Spur gear	D	Upper feed roller shaft
v)	Spur gear	E	Upper feed roller shaft
vi)	Spur gear	F	Lower feed roller shaft
vii)	Bevel gear	G	Splined shaft on main shaft

A-4.2 Functioning of Device (see Fig. 11)

A-4.2.1 If the roller handle is put in backward direction, bevel gear 'A' which is mounted on splined shaft receives the drive from main shaft. The main shaft moving in anti-clockwise direction will rotate bevel gear 'A' also in anti-clockwise direction. Bevel gear 'A' meshes with bevel gear 'B' which is mounted on a counter shaft, having at other end a pinion 'C'. This will rotate bevel gear 'B' counter shaft and pinion 'C' in clockwise direction. Gear 'D' meshes with pinion 'C' and rotates in anti-clockwise direction. Gears 'D' and 'E' are on the same shaft, hence the direction or rotation of 'E' would also be the same. Gears 'E' and 'F' mounted on upper and lower feed roller shafts, respectively, mesh with each other; therefore, the gear 'F' rotates in clockwise direction. The direction of rotation of upper and lower feed rollers would be the same as that of gears 'E' and 'F'. This is the feed-in position.

A-4.2.2 If the roller handle is put in forward direction, bevel gear 'G', which is mounted on splined shaft, receives the drive from main shaft and moves in anti-clockwise direction. Bevel gear 'G' meshes with bevel gear 'B'. The bevel gear 'B' counter shaft and pinion 'C' will rotate in anti-clockwise direction. This will ultimately lead to the rotation of lower feed roller in anti-clockwise direction. This is the reversed or feedback position and the material being fed moves out instead of moving into the threshing chamber.

A-4.2.3. In case the roller handle is kept in central position. feed-reversing mechanism will not operate. This is the neutral position.

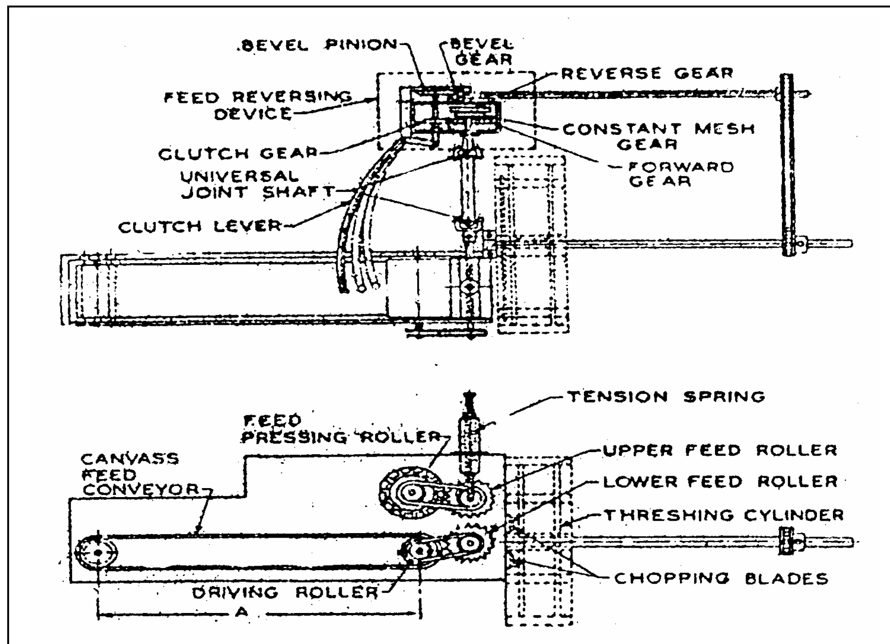


FIG. 9- FEED REVERSING MECHANISM FOR CONVEYOR-FED CHAFF CUTTER

- BEVEL PINION
- BEVEL GEAR
- REVERSE GEAR
- FEED REVERSING DEVICE
- CLUTCH GEAR
- UNIVERSAL JOINT SHAFT
- CLUTCH LEVER
- CONSTANT MESH GEAR
- FORWARD GEAR
- TENSION SPRING
- FEED REVERSING ROLLER
- CANVASSFEED CONVEYOR
- UPPER FEED ROLLER
- LOWER FEED ROLLER
- THRESHING CYLINDER
- CHOPPING BLADES
- DRIVING ROLLER

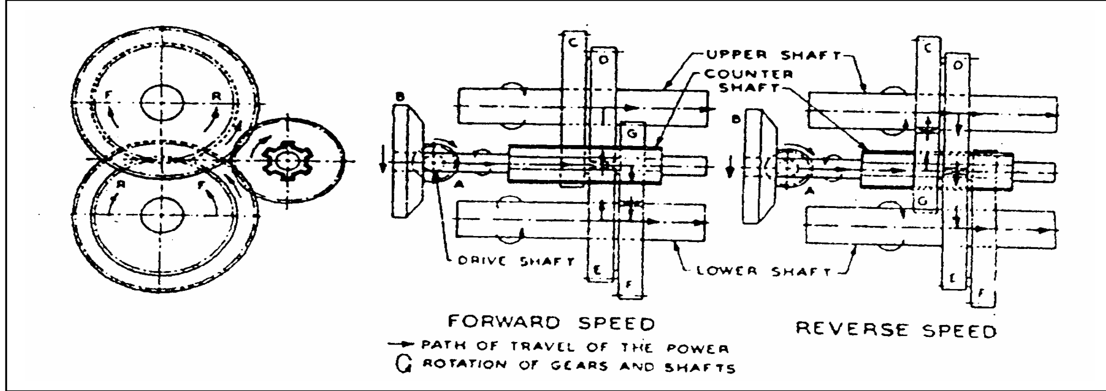
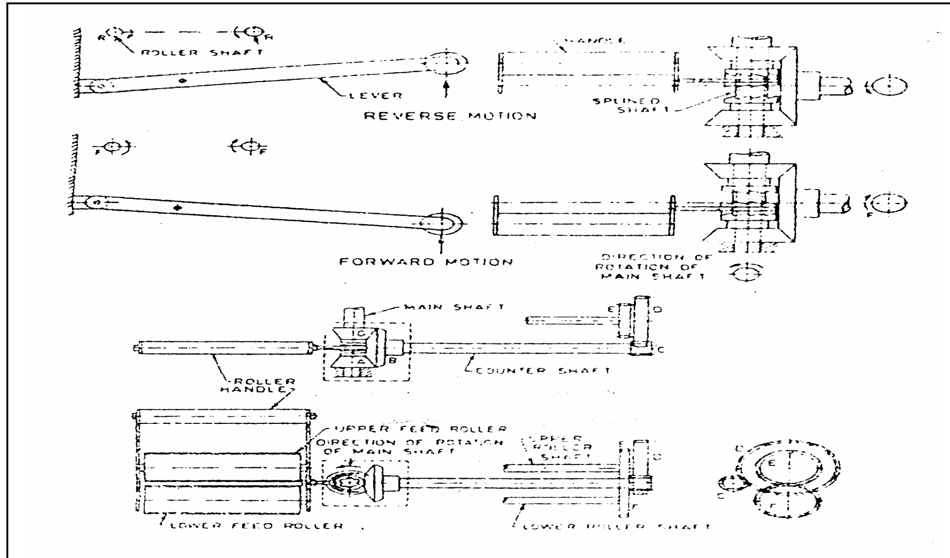


FIG. 10- POWER TRANSMISSION THROUGH FEED-REVERSING SYSTEM FOR CONVEYOR-FED CHAFF CUTTER

- UPPER SHAFT
- COUNTER SHAFT
- DRIVE SHAFT
- LOWER SHAFT
- FORWARD SPEED
- REVERSE SPEED
- A
- B
- C
- D
- E
- F
- G

PATH OF TRAVEL OF THE POWER

ROTATION OF GEARS AND SHAFTS



- ROLLER SHAFT
- HANDLE
- ROLLER SHAFT
- LEVER
- SPLINED SHAFT
- REVERSE MOTION
- FORWARD MOTION
- DIRECTION OF MAIN SHAFT
- MAIN SHAFT
- COUNTER SHAFT
- ROLLER HANDLE
- UPPER FEED ROLLER
- UPPER ROLLER SHAFT
- LOWER ROLLER SHAFT
- LOWER FEED ROLLER

FIG.11- FUNCTIONING OF FEED REVERSING MECHANISM FOR CONVEYOR FED CHAFF CUTTER

(2) The transmission system of every power thresher power operated chaff cutter and sugarcane crusher shall be provided with suitable guards as specified in the Third Schedule.

The First Schedule

Form I

[See rule 3 (1) and (3)]

Form of licence for manufacture or commencement of carrying on business as a manufacturer of a dangerous machine.

Licence No……………

Whereas M/s.____

of ____has/have

(give full address)

applied for a licence for commencement of/carrying on business as a manufacturer of________________

____

(here specify which dangerous machine)

And whereas the Controller is satisfied that the condition specified in clause (a) of subsection (4) of section 9 or, as the case may be, subsection (4) of section 9 has been complied with.

Now, therefore, in exercise of the powers, conferred by section 9 of the Act, licence is granted/renewed to M/s.____ for a period of five years to commence/carry on business as a manufacturer of the

1.

2.

3.

(give name of machine [power thresher, power operated chaff cutter, power operated sugarcane crusher] and trade name with brief description and overall dimensions)

This licence is issued subject to the following conditions, namely:-

(1) The manufacturer shall ensure that the machine and every part thereof complies with the standards specified by rule 4 of the Dangerous Machine (Regulation) (Amendment) Rules, 2007.

(2) Without prejudice to the generality of condition number (1) above, the manufacturer shall ensure that the following parts are secured by safeguard of substantial construction:-

(a) the prime-mover and every part thereof;

(b) the transmission machinery and every part thereof; and

(c) every other dangerous part such as rollers, blowers, elevators, knife blades and the like.

NOTIFICATION

New Delhi, the 24th July, 2007

G.S.R. 506(E).- In exercise of the powers conferred by sub-section (1) of section 36 of the Dangerous Machines (Regulation) Act, 1983 (35 of 1983), and in supersession of the Dangerous Machines (Regulation) Rules, 1984, except as respects things done or omitted to be done before such supersession, the Central Government hereby makes the following rules, namely:-

1. Short title and commencement:- (1) These rules may be called the Dangerous Machines (Regulation) Rules, 2007.

(2) They shall come into force on such date as the Central Government may, by notification in the Official Gazette, specify, and different dates may be specified for different rules.

2. Definitions.- In these rules, unless the context otherwise requires,-

(a) "Act" means the Dangerous Machines (Regulation) Act, 1983 (35 of 1983);

(b) "Form" means a form appended to the First Schedule to the rules.

(c) "Schedule" means a Schedule appended to these rules.

3. Form of licence issued under section 9.- (1) Every licence issued to a person authorizing him to manufacture, or to commerce or to carry on business as the manufacturer of any dangerous machine shall be issued in Form I.

(2) There shall be issued for each category of dangerous machine, a separate licence and every such licence shall be issued in Form I.

(3) Every licence to commence or carry on business as a dealer of a dangerous machine shall be issued in Form II.

(4) Every licence referred to in sub-rule (2) shall be valid for dealing with the types or models of dangerous machines specified in the licence.

4. Standards and specifications of power threshers, power operated chaff cutter and sugarcane crushers.- Every licence issued under rule 3 shall ensure that the power thresher, power operated chaff cutter and sugarcane crushers manufactured by him/her complies with the standards and specifications laid down in the Second Schedule.

5. Modifications of existing dangerous machines how to be made.- (1) Every person who has, immediately before the commencement of the Act, in his/her custody or control any power thresher, power operated chaff cutter and sugarcane crusher which does not comply, in all respects, with the provisions of the Act, and the rules and orders made thereunder, shall get it modified so as to ensure that the feeding system conforms to the specifications laid down in the Third Schedule. which conform to the standards laid down by or under the Dangerous Machines (Regulation) Act, 1983 (35 of 1983).

Now, therefore, in exercise of the power conferred by sub-section (4) of section 9, licence is granted to M/s__________ for a period of five years to commence/carry on business as a dealer of:

Serial Number	Name of the machine	Make/model and brief description	Horsepower/kilowatt requirement of the machine
(1)			
(2)			
(3)			

(Specify, types of threshers, power operated chaff cutter and power operated sugarcane crusher or other dangerous machine)

This licence is issued subject to the following conditions, namely:-

(1) The dealer shall deal only in machines of a manufacturer licenced under the Act.

(2) Before transferring the possession of any machine whether by sale, lease, hire or otherwise, the dealer shall deliver to the person acquiring the possession of such machine, a declaration to the effect that the machine conforms to the standards laid down by or under this Act and also complies with, in all respects, the provisions of this Act and the rules and orders made thereunder.

(3) Failure to comply with the conditions specified above or of any provision of the Act or rule or order made thereunder will make this licence liable to suspension/cancellation as provided in section 10.

[Nota Bene: All references to the Act or any section thereof are references to the Dangerous Machines (Regulation) Act, 1983 (35 of 1983) or the relevant section thereof].

Granted this________________________day of________________________

Date: Designation

(Seal)

Place:

The Second Schedule

[See rule 4]

1. A power thresher shall comply with the following Indian Standards as my be relevant:-

S 9020:2002 (Power Threshers- Safety Requirements)

(3) The manufacturer shall clearly and legibly provide the machine with danger signals indicating the point beyond which no limb shall be inserted for the purpose of feeding the machine or for any other purpose while the machine is in operation.

(4) The manufacturer shall ensure that the following particulars are legibly and conspicuously marked or inscribed on every dangerous machine by such method as would make it indelible, namely:-

(a) the direction of the rotation and the number of rotations per minute;

(b) its power requirements; and

(c) the name and correct address of the manufacturer, the year of manufacture and the date, number and other particulars of the licence of the manufacturer.

(5) Every manufacturer shall supply along with each dangerous machine a manual containing general instructions regarding the operation of such machine, in Hindi and regional languages.

(6) Before, transferring the possession of the machine whether by sale, lease, hire or otherwise, the manufacturer shall deliver to the person acquiring the machine a declaration to the effect that the machine conforms to the standards laid down by or under this Act and also complies, in all respects, with the provisions of the Act and rules and orders made thereunder.

(7) Failure to comply with the conditions specified above or of any provision of the Act or rule or order made thereunder will make this licence liable to suspension or cancellation as provided in section 10.

[Nota Bene - All references to the Act or any section there of are references to the Dangerous Machines (Regulations) Act, 1983 (35 of 1983) or the relevant section thereof]

Granted this________________________day of________________________

Place: Designation

Date: (Seal)

FORM II

[See rule 3 (3)]

Form of licence for commencement or carrying on business as a dealer of a dangerous machine.

Licence No________________

Whereas M/s.________________________of ________________________________

(here give full address)

has/have applied for a licence for commencement of/carrying on business as a dealer of

____

(here specify which dangerous machine)

And whereas the Controller is satisfied that the applicant proposes to commence/carry on business in

____

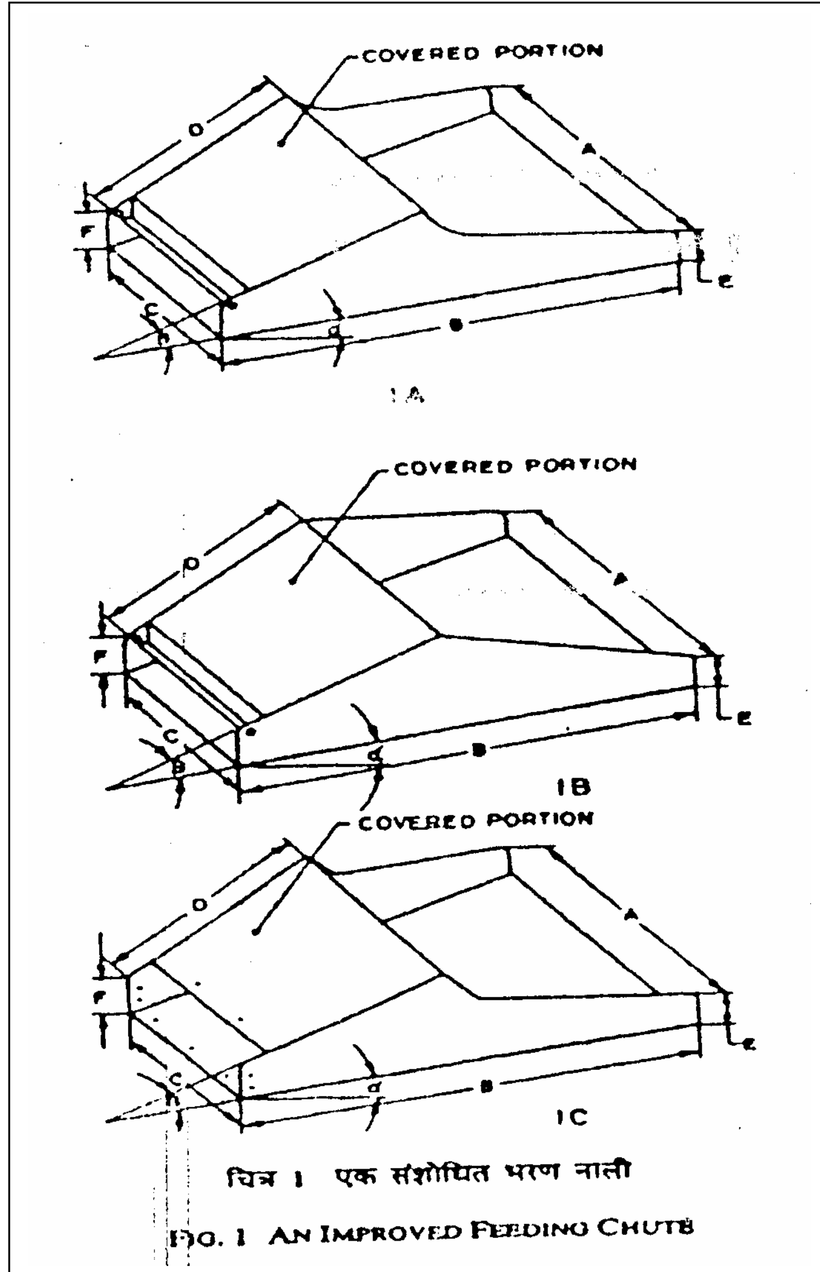
(specify which machine)

TABLE 2

Recommended Dimensions for Chute for Spike Tooth Cylinder type Threshers

Serial Number	Size of the prime mover for thresher	A	C*	E	F
(1)	(2)	(3)	(4)	(5)	(6)
	kw(HP)	mm	mm	mm	mm
(i)	3.7 (5)	440	350	60	190
(ii)	5.5 (7.5)	480	400	60	190
(iii)	7.5 (10)	540	480	60	190
(iv)	11 (15) and above	590	530	60	210

NOTE:- A,C,E and F refer to the dimensions as shown in the figure.



चित्र 1 एक संशोधित भरण नाली

FIG. 1 AN IMPROVED FEEDING CHUTE

2. **A power operated chaff cutter shall** comply with the requirements of the following Indian Standards -

IS 15542: 2005 (Power Operated Chaff Cutter-Safety requirements)

IS 11459: 1985 (Specification for power operated Chaff Cutter)

3. **A power operated sugarcane crusher shall** comply with the requirements of the following Indian Standards:-

IS 15561: 2005 (Sugarcane Crushers - Safety requirements)

IS 1973: 1999 (Sugarcane Crusher - Specifications (third revision)

The Third Schedule

[See rule 5]

1. Every power thresher power operated chaff cutter and power operated sugarcane crusher referred to in rule 5 shall be so modified as to ensure that the feeding system conforms to section 7 as the case may be of IS 9020:2002, section 7.2, 7.3 of IS 15542: 2005 and section 5.1. 5.1.1, 5.1.2 and 5.2 IS 15561: 2005 of the Indian Standards respectively.

2. The transmission system shall be provided with suitable guards as specified in section 6 of Indian Standards No. IS: 9020 of 2002, section 8 of Indian Standards No. IS 15542: 2005 and section 6 of IS 15561: 2005 respectively.

3. The recommended dimensions of the chute for Hammer-mill, Drummy and Syndicator type threshers are given in Table 1 below.

4. The recommended dimensions of chute for spike tooth cylinder type threshers are given in Table 2 below. The recommended dimensions of the chute for power operated chaff cutter and power operated sugarcane crusher is given in Table 3 and Table-4 below respectively. The feeding hopper of the power thresher shall conform to section A-2 of ANNEX A of IS 9020:2002. The positive feed rollers with conveyor or chute system used on chaff-cutter type power thresher shall conform to section A-3 of ANNEX A of IS 9020:2002. The conveyor feeding system used with spike tooth or rasp-bar type power thresher of power rating of 5.5 kw or higher shall conform to section A-4 of ANNEX A of IS 9020:2002. The recommended dimension of conveyor system for power operated chaff cutter is given in Table-5.

TABLE 1

Recommended Dimensions of Chute for Hammer-Mill, Drummy and Syndicator Type Threshers

Serial Number	Size of the prime mover for thresher	A	C*	E	F
(1)	(2)	(3)	(4)	(5)	(6)
	kw(HP)	mm	mm	mm	mm
(i)	3.7 (5)	500	200	50	125
(ii)	5.5 (7.5)	550	200	60	175
(iii)	7.5 (10)	600	220	60	190
(iv)	11 (15) and above	650	220	60	200

* For syndicator type thresher the dimension should be 230 mm.

No. 14-16/2007-M&T (I&P)
Government of India
Ministry of Agriculture
Department of Agriculture & Cooperation

Krishi Bhavan, New Delhi-110 001
Dated the 19th November 2007

To,

1. The Director Agriculture
   (all States and UTs.)
2. Nodal Departments of States
   (As per list)

Subject: Dangerous Machines (Regulation) Act, Notification No. 505 (E)/506 (E) dated 24th July 2007 published in the Gazette of India (Extraordinary) - regarding.

Sir,

In exercise of the powers conferred by sub-section (1) of section 36 of the Dangerous Machines (Regulation) Act, 1983 (35 of 1983), the Power operated chaff cutter and power operated sugarcane crushers have been included as Dangerous machines and accordingly the Dangerous Machines (Regulation) Rules, 1984 have been amended. The Government of India published a Notification in the Gazette of India (Extraordinary) vide S.O. No. 505(E)/506(E) dated 24th July 2007. The copy of the same is enclosed herewith.

Since the notification is of interest to the General Public, the State Governments and nodal Departments of States may give wide publicity to the same and also like to re-publish in State Official Gazette in their regional languages.

Yours faithfully,
A.N. MESHRAM
Deputy Commissioner (M&T)

Encl: As stated above.

LIST OF NODAL DEPARTMENTS FOR DMRA

1.	The Labour Commissioner Office of Labour Commissioner, Block No. 14, 2nd Floor, Udoyg Bhavan, Sector - 11. Gandhinagar - 382 013. Gujarat.	2.	Director of Factories and Boilers 2nd Floor, Karmika Bhavan, Diary Circle, Bannerghatta Road, Bangalore (Karnataka)
3.	Director of Factories & Boilers, Department of Factories & Boilers, Thiruvananthapuram (Kerala)	4.	Director Industrial Health and Safety Directorate of Industrial Health & Safety, New Moti Bungalow, MG Road, Indore (MP)
5.	Chief Inspector of Factories Factories (Labour & Employment) Inspectorate Chepauk, Chennai 600 005	6.	The Department of Labour Government of West Bengal, LW Branch, Writers Buildings, Kolkata-700001, (West Bengal)
7.	The Department of Labour, 'B' Block, Chief Secretariat, Govt. of Pondicherry - 605001	8.	The Project Officer (IADP) 4th Floor, Room No. 410 to 412, ISBT, Delhi-110006.

TABLE 3

Recommended Dimensions of chute for power operated chaff cutter.

Serial Number	Description	Dimension (mm)
(1)	(2)	(3)
(i)	Minimum length of chute	900
(ii)	Minimum thickness of sheet metal of chute	1.6
(iii)	Minimum length of chute cover	450
(iv)	Height of chute from ground level	750 to 1100

TABLE 4

Recommended Dimensions of feed plate/chute for sugarcane crusher

Serial Number	Description	Dimension (mm)
(1)	(2)	(3)
(i)	Minimum thickness of Sheet Metal of feed plate/chute	1.6
(ii)	Maximum opening for feeding the cane in feed plate/chute	60
(iii)	The feed plate or feed chute shall be covered on front for a minimum distance of	600

TABLE 5

Recommended Dimensions of conveyor system for power operated chaff cutter.

Serial Number	Description	Dimension (mm)
(1)	(2)	(3)
(i)	Minimum length of conveyer cover	1200
(ii)	Minimum length of covered conveyer cover	450
(iii)	Minimum thickness of sheet metal for cover	1.6
(iv)	feed reversing mechanism	Shall conform to the requirements in ANNEX-A of IS 15542: 2005
(v)	Minimum thickness of MS Sheet (IS: 2062) for guard of blower, if provided	1.6

Annexure:

1. ANNEX A of IS 9020:2002
2. ANNEX A of IS 15542:2005

[f.No. 13-30/2005-My (I&P)]

PREM NARAIN, Jt. Secy.

ಆರ್.ಎಸ್. ಇಟಗಿ

ಸರ್ಕಾರದ ಅಧೀನ ಕಾರ್ಯದರ್ಶಿ,

ಕೃಷಿ ಮತ್ತು ತೋಟಗಾರಿಕೆ ಇಲಾಖೆ

ಪಿ.ಆರ್. 34

ಸಂಸದೀಯ ವ್ಯವಹಾರಗಳು ಮತ್ತು ಶಾಸನ ರಚನೆ ಸಚಿವಾಲಯ

ಅಧಿಸೂಚನೆ

ಸಂಖ್ಯೆ: ಸಂವ್ಯಶಾಇ 34 ಕೇನಿಪ್ರ 2008, ಬೆಂಗಳೂರು, ದಿನಾಂಕ: 13ನೇ ಆಗಸ್ಟ್ 2008

2008ನೇ ಸಾಲಿನ ಜುಲೈ 11ನೇ ದಿನಾಂಕದ ಭಾರತ ಸರ್ಕಾರದ ಗೆಜೆಟ್‌ನ ವಿಶೇಷ ಸಂಚಿಕೆಯ ಭಾಗ–II ಸೆಕ್ಷನ್ 3(ii)ರಲ್ಲಿ ಪ್ರಕಟವಾದ ಈ ಕೆಳಕಂಡ (1) S.O. 1665 (E) (Notification No.F.2/220/2006-SEZ ದಿನಾಂಕ:11.7.2008) (2) S.O. 1666 (E)(Notification No. F.2/220/2006-SEZ ದಿನಾಂಕ 11.7.2008) (3) S.O. 1667 (E)(Notification No. F2/220/2006-SEZ ದಿನಾಂಕ :11.7.2008 ಮತ್ತು (4) S.O. 1668 (E)(Notification No. F. 2/220/2006-SEZ ದಿನಾಂಕ :11-7-2008) ಗಳನ್ನು ಸಾರ್ವಜನಿಕರ ಮಾಹಿತಿಗಾಗಿ ಕರ್ನಾಟಕ ರಾಜ್ಯ ಪತ್ರದಲ್ಲಿ ಮರು ಪ್ರಕಟಿಸಲಾಗಿದೆ

MINISTRY OF COMMERCE AND INDUSTRY

(Department of Commerce)

NOTIFICATION

New Delhi, the 11th July 2008

S.O. 1665(E) : Whereas M/s Bagmane Construction Private Limited, a Private Organization in the State of Karnataka, has proposed under Section 3 of the Special Economic Zones Act, 2005 (28 of 2005), (hereinafter referred to as the said Act) to set up a sector specific Special Economic Zone for information technology and information technlogy enabled services at Mahadevapura, K.R. Puram, Bangalore North, in the State of Karnataka;

And whereas the Central Government is satisfied that requirements under sub-section (8) of Section 3 of the said Act, and other related requirements are fulfilled and it has granted letter of approval under sub-section (10) of Section 3 of the said Act for development, operation and maintenance of the sector specific Special Economic Zone, for Information Technology and information technology enabled services at Mahadevapura, K.R. Puram, Bangalore, North, in the state of Karnataka on 7th January, 2008;

Now therefore in exercise of the powers conferred by sub-section (1) of section 4 of the Special Economic Zones Act, 2005 and in pursuance of rule 8 of the Special Economic Zones Rules, 2006 the Central Government hereby notifies the following area at Mahadevapura, K.R. Puram, Bangalore North, in the State of Karnataka comprising of the survey numbers and the area given below in the Table, as a Special Economic Zone, namely:

TABLE

Sl.No	Survey No	Area in hectares
1	34/1	00.31
2	35/1	00.68
3	36/1	00.12
4	36/2	00.09
5	37/1	00.08
6	37/2	00.87
7	103	00.75
8	104	00.45
9	105/1	00.51
10	105/2	00.09
11	61	01.10
12	63	01.88

Sl.No	Survey No	Area in hectares
13	106	00.46
14	107	00.56
15	110	01.34
16	111	00.53
17	112	01.49
	Total	11.31

[No F. 2/220/2006-SEZ]

ANILMUKIM Jt. Secy

MINISTRY OF COMMERCE AND INDUSTRY

(Department of Commerce)

NOTIFICATION

New Delhi the 11th July, 2008

S.O. 1665(E): Whereas M/s Bagmane Construction Private Limited a Private Organization in the State of Karnataka has proposed under section 3 of the Special Economic Zones Act, 2005 (28 of 2005), (hereinafter referred to as the said Act) to set up a sector specific Special Economic Zone for information technology and information technology enabled services at Mahadevapura, K.R. Puram, Bangalore North, in the State of Karnataka;

And whereas the Central Government is satisfied that requirements under sub-section (8) of Section 3 of the said Act, and other related requirements are fulfilled and it has granted letter of approval under sub-section (10)of Section 3 of the said Act for development, operation and maintenance of the sector specific Special Economic Zone for information technology and information technology enabled services Mahadevapura, K.R. Puram, Bangalore North, in the State of Karnataka on 7th January, 2008;

Now therefore in exercise of the powers conferred by sub-section (1) of section 4 of the Special Economic Zones Act, 2005 and in pursuance of rule 8 of the Special Economic Zones Rules, 2006, the Central Government hereby notifies the following area at Mahadevapura, K.R. Puram, Bangalore North in the State of Karnataka comprising of the Survey numbers and the area given below in the Table, as a Special Ecomomic Zone, namely:

TABLE

Sl.No	Survey No	Area in hectares
1	34/1	00.31
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3	36/1	00.12
4	36/2	00.09
5	37/1	00.08
6	37/2	00.87
7	103	00.75
8	104	00.45
9	105/1	00.51
10	105/2	00.09
11	61	01.10
12	63	01.88
13	106	00.46

Sl.No	Survey No	Area in hectares
14	107	00.56
15	110	01.34
16	111	00.53
17	112	01.49
	Total	**11.31**

[No F. 2/220/2006-SEZ]

ANILMUKIM Jt. Secy

NOTIFICATION

New Delhi, the 11th July 2008

S.O. 1666(E): In exercise of the powers conferred by sub-section (1) of section 11 of the Special Economic Zones Act, 2005 the Central Government hereby appoints Director, Software Technology Parks of India, Bangalore to be the Development Commissioner of the special Economic Zone, as enumerated in the Table below:

TABLE

Sl.No	Name of the Developer	Location	Type	Area (in hectares)
1	Bagmane Construction Private Limited	Mahadevapura K.R. Puram, Bangalore North, Karnataka	IT/TTRS	11.31

2. For discharge of the functions as Development Commissioner, Director, Software Technology Parks of India Bangalore shall abide by the instructions of the Central Government Department of Commerce and the Board of Approval on Special Economic Zones, issued from time to time. He shall also be sending periodic reports, as prescribed by the Department of Commerce and the Board of Approval on Special Economic Zones, He shall be responsible to the Department of Commerce for all the actions taken as Development Commissioner. However the personal matters like leave, transfer, posting etc. of the incumbent shall be governed by the Department of Information Technology/Software Technlogy Park of India, as the case may be.

[No F. 2/220/2006-SEZ]

ANILMUKIM Jt. Secy

NOTIFICATION

New Delhi the 11th July 2008

S.O. 1667(E): In exercise of the powers conferred by sub-section (1) of section 13 of the Special Economic Zones Act, 2005 (28 of 2005) the Central Government hereby constitutes a Committee to be called the Approval Committee for the sector specific Special Economic Zone for Information Technology and Information Technology enabled services at Mahadevapura, K.R. Puram, Bangalore North in the state of Karnataka proposed to be developed by M/s Bagmane Construction Private Limited for the purposes of the said Act consisting of the following Chairperson and Members, namely:

1	2	3
1	Development Commissioner of the Special Economic Zone	Chairperson, Ex-officio
2	Director or Deputy Secretary to the Government of India, Ministry of Commerce and Industry, Department of Commerce or his nominee not below the rank of under Secretary to the development of India	Member, Ex-officio
3	Zonal Joint Director General of Foreign Trade, Bangalore	Member, Ex-officio
4	Commissioner of Customs or Central Excise having territorial jurisdiction over the Special Economic Zone or his nominee not below the rank of Joint Commissioner	Member, Ex-officio
5	Commissioner of Income Tax having territorial jurisdiction over the Special Economic one or his nominee not below the rank of joint Commissioner	Member, Ex-officio
6	Director (Banking) in the Ministry of Finance Banking Division, Government of India	Members, Ex-officio
7	Two officers, not below the rank of Joint, Secretary, to be nominated by the Government of Karnataka	Member, Ex-officio
8	Representative of M/s Bagmane Construction Private Limited (Developer)	Special Invitee

[F. 2/220/2006-SEZ]

ANILMUKIM Jt. Secy

NOTIFICATION

New Delhi, the 11th July 2008

S.O. 1668(E): In exercise of the powers conferred by sub-section (2) of Section 53 of the Special Economic Zones Act, 2005 (28 of 2005) the Central Government hereby appoints the 11th day of july 2008 as the date from which the sector specific Special Economic Zone for information technology and information technology enabled services sector at Mahadevapura, K.R. Puram, Bangalore North in the State of Karnataka proposed to be developed by M/s Bagmane Construction Private Limited shall be deemed to be Inland Container Depot under section 7 of the Customs Act, 1962.

[F. 2/220/2006-SEZ]

ANILMUKIM Jt. Secy

ಕರ್ನಾಟಕ ರಾಜ್ಯಪಾಲರ ಆದೇಶಾನುಸಾರ ಮತ್ತು ಅವರ ಹೆಸರಿನಲ್ಲಿ,

ಆರ್. ಆಂಜಿನಿ

ಸಹಾಯಕ ಪ್ರಾರೂಪಕಾರ ಮತ್ತು ಪದನಿಮಿತ್ತ

ಸರ್ಕಾರದ ಅಧೀನ ಕಾರ್ಯದರ್ಶಿ,

ಸಂಸದೀಯ ವ್ಯವಹಾರಗಳು ಮತ್ತು ಶಾಸನ ರಚನೆ ಇಲಾಖೆ.

ಪಿ.ಆರ್. 62